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Department of Energy

Ohio Field Office
Fernald Closure Project
175 Tri-County Parkway
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JAN 2 7 2005

DOE-0138-05

Mr. James A. Saric, Remedial Project Director
U.S. Environmental Protection Agency
Region V-SR-6J
77 West Jackson Boulevard
Chicago, Illinois 60604-3590

Mr. Tom Schneider, Project Manager
Ohio Environmental Protection Agency
401 E. 5th Street
Dayton, OH 45402-2911

Dear Mr. Saric and Mr. Schneider:

TRANSMITTAL OF RESPONSES TO OHIO ENVIRONMENTAL PROTECTION AGENCY COMMENTS ON THE DRAFT CERTIFICATION DESIGN LETTER FOR AREA 2, PHASE II - SUBAREA 3 IMPACTED MATERIAL HAUL ROAD

References:
1) Letter DOE-0057-05, W. Taylor to J. Saric and T. Schneider, "Transmittal of the Draft Certification Design Letter for Area 2, Phase II - Subarea 3 Impacted Material Haul Road," dated November 10, 2004

2) Letter, J. Saric to J. Reising, "A2 P2 Subarea 3," dated December 8, 2004

3) Letter, T. Schneider to W. Taylor, "Disapproval – CDL for Area 2, Phase II – Subarea 3 IMHR," dated December 17, 2004

Enclosed for your review and approval are responses to Ohio Environmental Protection Agency comments on the draft Certification Design Letter (CDL) for Area 2, Phase II - Subarea 3 Impacted Material Haul Road noted in Reference 2. This CDL was approved by the U.S. Environmental Protection Agency as noted in Reference 3. Upon approval, these comment responses will be incorporated into the final CDL.

If you have any questions or require additional information, please contact Johnny Reising at (513) 648-3139.

Sincerely,

William J. Taylor
Director

Enclosure: As Stated

cc w/enclosure:
D. Pfister, OH/FCP
J. Reising, OH/FCP
T. Schneider, OEPA-Dayton (three copies of enclosure)
G. Jablonowski, USEPA-V, SR-6J
F. Bell, ATSDR
M. Cullerton, Tetra Tech
M. Shupe, HSI GeoTrans
R. Vandegrift, ODH
AR Coordinator, Fluor Fernald, Inc./MS78

cc w/o enclosure:
R. Abitz, Fluor Fernald, Inc./MS64
K. Alkema, Fluor Fernald, Inc./MS01
L. Barlow, Fluor Fernald, Inc./MS52-3
D. Brennan, Fluor Fernald, Inc./MS64
T. Carr, Fluor Fernald, Inc./MS60
J. Chiou, Fluor Fernald, Inc./MS64
M. Frank, Fluor Fernald, Inc./MS64
F. Johnston, Fluor Fernald, Inc./MS52-5
S. Lorenz, Fluor Fernald, Inc./MS52-3
F. Miller, Fluor Fernald, Inc./MS64
C. Murphy, Fluor Fernald, Inc./MS77
D. Nixon, Fluor Fernald, Inc./MS01
D. Powell, Fluor Fernald, Inc./MS64
T. Snider, Fluor Fernald, Inc./MS64
M. Stumbo, Fluor Fernald, Inc./MS60
B. Zebick, Fluor Fernald, Inc./MS60
ECDC, Fluor Fernald, Inc./MS52-7

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RESPONSES TO
OHIO ENVIRONMENTAL PROTECTION AGENCY
COMMENTS ON THE DRAFT
CERTIFICATION DESIGN LETTER
FOR AREA 2, PHASE II – SUBAREA 3
IMPACTED MATERIAL HAUL ROAD

FERNALD CLOSURE PROJECT
FERNALD, OHIO

JANUARY 2005

U.S. DEPARTMENT OF ENERGY

RESPONSES TO OHIO ENVIRONMENTAL PROTECTION AGENCY COMMENTS ON THE DRAFT CERTIFICATION DESIGN LETTER FOR AREA 2, PHASE II – SUBAREA 3 IMPACTED MATERIAL HAUL ROAD (20450-RP-0007, Revision A)

COMMENTS

1. Commenting Organization: Ohio EPA Commenter: OFFO
Section #: General Comment Pg #: Line #: NA Code: C
Original Comment #: 1
Comment: The use of the predesign sampling for certification is not supported by the SEP nor was it proposed or suggested in the Predesign PSP. This is not consistent with prior certification approaches and presents a number of problems when reviewing sample location selection, analyte selection, and certification unit layout. Ohio EPA does not support this as an appropriate method for certification.

Response: This approach was developed after reviewing all of the predesign characterization data that indicated the soil under the Impacted Material Haul Road (IMHR) would likely pass certification without remediation. Although the Sitewide Excavation Plan (SEP) does not specifically define this approach as a typical certification approach, it does allow for modifications to the acceptable approaches with agency concurrence. Specifically, in Section 1.0 of the SEP it states, "Necessary modifications to the technical approaches and/or project schedules presented in the SEP will be developed with regulatory concurrence and documented in future change pages to the SEP, area-specific design packages or other appropriate official correspondences." The submittal of this CDL is considered one of the aforementioned 'official correspondences'. For this submittal, sample location selection, analyte selection, and the certification unit (CU) layout were evaluated along with the required data quality in order to justify this approach.

Additionally, this approach was a topic of discussion in the November 2004 Technical Information Exchange meeting held between Fluor Fernald, DOE, Ohio EPA, and U.S. EPA. At this meeting, data and historical information were presented to support such an effort. It was determined between all parties in that meeting that this approach, although not typical, was worthwhile pursuing.

Action: None.

2. Commenting Organization: Ohio EPA Commenter: OFFO
Section #: General Comment Pg #: Line #: NA Code: C
Original Comment #: 2
Comment: The certification unit proposed is inconsistent with the approach previously used along the haul road. Consistent with the A2PII Subareas 1, 2 and 4 Certification PSP and Report the areas along the sides of the road should be separated into a certification unit different from those of the road bed. The mode of contaminant deposition would be substantially different in the two areas necessitating separate certification units. This is also consistent with the approach used in A1PI North Access Road.

Response: DOE agrees that the mode of historical contaminant deposition would be different along the sides of the road in the ditches versus directly beneath the IMHR itself. Therefore, the ditches along the side of the haul road were previously certified under the A2PII Subareas 1, 2 and 4 Certification PSP and Report with CUs A2P2-C-26, -27 and -28, which is also consistent with the approach used in the A1PI North Access Road. These CUs were immediately adjacent to the road on the southern end and then fanned out on the east side

northern end to follow the ditch line. The west side of the northern end of the IMHR did not have such a pronounced ditch. It resembled more of a gently swale and therefore, a distinct CU was not developed for it under the A2PII Subareas 1, 2 and 4 Certification PSP and Report.

The areas immediately to the east and west of the northern section road are now covered in gravel used for parking, which is now more consistent with road conditions and therefore, it is reasonable to include these areas in the same CU as the road.

Action: None.

3. Commenting Organization: Ohio EPA Commenter: OFFO
Section #: General Comment Pg #: Line #: NA Code: C
Original Comment #: 3
Comment: Throughout this document, DOE makes a claim that the high arsenic levels found in the predesign results "are consistent with the area background conditions." Considering that the A2PII area is located close to the former flyash pile, several southerly arsenic predesign results are significantly higher than background, and DOE's proposed statistics do not support the conclusion for calling arsenic levels "background." Ohio EPA believes additional investigation and/or excavation is needed to address arsenic.

Response: Even though the elevated arsenic locations are near the former Inactive Flyash Pile (IFP) located in the South Field, there are data that show a distinct separation of the conditions between the former IFP and these elevated locations. The southernmost sample location with arsenic that is above the final remediation level (FRL) is point A2P2-EWF4, which is located just north of the former wheel wash. Three other locations, A2P2-EWF1, A2P2-EWF2, A2P2-EWF3, which are south of EWF4 but north of the former IFP, have arsenic concentrations below the FRL. Additionally, there was a complete CU (A2P1-NWU10) during the A2PI certification effort that was located between the former IFP and these newly identified arsenic locations. This entire unit did not identify a single above-FRL result for arsenic. Therefore, we believe that since there is data demonstrating a separation between the former IFP and the locations of elevated arsenic beneath the IMHR, the proposed statistics do support the conclusion that the arsenic levels are consistent with background conditions. No further investigation is necessary.

Action: None.

4. Commenting Organization: Ohio EPA Commenter: OFFO
Section #: ES Pg #: ES-2 Line #: NA Code: C
Original Comment #: 4
Comment: Page ES-2 is confusing in the basis for the precertification. It talks about both removing and maintaining the current road as basis for the precertification. Additional clarity is needed.

Response: Agree. The road will be maintained until the end of the Silos Project. After that time, the road and base will be removed.

Action: This paragraph will be rewritten to provide additional clarity.

5. Commenting Organization: Ohio EPA Commenter: OFFO
Section #: ES Pg #: ES-2 Line #: NA Code: C
Original Comment #: 5
Comment: Though the document references "A1PII Access Road" as the basis for the proposed approach, Ohio EPA was unable to locate a similar approach within A1PII. The most similar approach that was found was the North Access Road in A1PI. And, the proposed IMHR approach in this document is inconsistent with A1PI in regards to CU size and sample location selection. The sample locations within the IMHR are not consistent with the randomized distribution required in the SEP certification protocol.

Response: Certification of the soil beneath the road surface was performed for a section of the old North Access Road (NAR) in A1PII. CUs A1P2-S2B-NAR1 and A1P2-S2B-NAR2 encompassed the NAR and soil samples were collected through the pavement. Section 2.3.1 entitled North Access Road, of the PSP for A1PII Sector 2B Certification Sampling states "The NAR is being handled as a special case since the soil beneath the pavement will be certified before the road is removed. Borings will be conducted through the pavement and associated road material. The top 6 inches of soil beneath the road will be certified."

DOE agrees that this approach varies from the typical certification approach. However, the predesign locations were randomly selected in sections and as stated in the Response to Comment #1, the SEP allows for such a variance contingent upon regulatory concurrence.

Action: None.

6. Commenting Organization: Ohio EPA Commenter: OFFO
Section #: 1.2 Pg #: 1-2 Line #: 11-23 Code: C
Original Comment #: 6
Comment: DOE's reasoning behind using a "non-significant variance" to document and provide basis in using predesign data for certification purposes does not follow DOE's own variance guidelines, nor does it support the certification process. Ohio EPA would expect an "official" letter from DOE requesting that predesign results be utilized for certification purposes.

Response: The non-significant variance to the predesign PSP was to direct the laboratory to provide the data consistent with Analytical Support Level D laboratory quality. This variance was referenced only to provide assurance to the regulators that the laboratory was directed to do so and that the data now meet the quality necessary for certification. It does not change sample location, add or delete samples, nor alter the list of constituents of concern, where significant variances are required. This variance to change the level of required data quality is routine and does not fall under the umbrella of a 'significant' variance requiring agency approval prior to implementation. Therefore, it does follow the variance guidelines.

This CDL was submitted as the "official" correspondence from DOE requesting that predesign results be utilized for certification purposes.

Action: None.

7. Commenting Organization: Ohio EPA Commenter: OFFO
Section #: 2.0 Pg #: Line #: NA Code: C
Original Comment #: 7
Comment: It appears the predesign investigation failed to fully characterize the contamination in the area of boring A2P2-IHR13. The multiple exceedances of the arsenic FRL along with the exceedance of the radium FRL in one boring should indicate the need for additional characterization. These data in association with the proximity of the sample point to the southern waste units indicates the need for further data collection.

Response: The single exceedance of radium-226 was found in the 2.0 to 2.5-foot interval with below FRL results in the 0 to 0.5-foot, 1.0-1.5-foot, and the 3.0 to 3.5-foot intervals with the 3.0 to 3.5-foot interval having the lowest concentration at 0.98 picoCuries per gram. Conversely, arsenic exhibited elevated results in all four intervals, which demonstrates that these two constituents are independent of each other.

As described above, the interval that radium-226 was found to be elevated had below-FRL results in the intervals both above and below it and therefore, did not require further data collection. As described in the Response to Comment #3, the arsenic levels are considered to be consistent with the background subsurface soil conditions, which also provides the basis for discontinuing further data collection.

Action: None.

8. Commenting Organization: Ohio EPA Commenter: OFFO
Section #: 2.0 Pg #: 2-1 Line #: 20-21 Code: C
Original Comment #: 8
Comment: It is unclear from reviewing the Predesign PSP if the 0 to 0.5 interval was taken from native soils or from fill located below the gravel of the IMHR. The Predesign PSP states, "All bores will be advanced to a depth of not less than 3.5 feet and every other 6-inch interval will be sampled...If native soil is not observed by the 3.5-foot interval, the boring will be advanced to sample the top 6 inches of native soil." Obviously this suggests the first sample likely to not be in the 0 to 0.5-foot interval. Certification should be based upon the level of native soil, not the fill placed for construction of the road.

Response: Historical topo shows that a cut was necessary in this area to construct the road. Therefore, there was no fill beneath the road. All samples were collected of native soil.

Action: This statement will be added to the text of this CDL and the subsequent Certification Report.

9. Commenting Organization: Ohio EPA Commenter: OFFO
Section #: 3.2 Pg #: 3-2 Line #: Code: C
Original Comment #: 9
Comment: The section provides no justification for the reduction of ASCOCs from those in the predesign data. This is especially confusing as the samples were collected for a large suite of COCs as detailed in the Predesign PSP. This again demonstrates the large suite of COCs as detailed in the Predesign PSP. This again demonstrates the problems with trying to use predesign data for certification. All ASCOCs from Table 3-1 should be retained for certification.

Response: Agree. Radium and arsenic were the only above-FRL parameters throughout the sample population and as such, they were the only two constituents of concern (COCs) that required a statistical analysis for certification. All other COCs were below FRL, where statistical analysis is not required for certification. We agree that the remainder of the large suite of COCs should be presented in the CDL. Therefore, all constituents will be retained to demonstrate certification.

Action: Include all predesign COCs in the scope of this CDL. Data tables containing all predesign results will be added as an appendix to this CDL.

10. Commenting Organization: Ohio EPA Commenter: OFFO
Section #: 5.0 Pg #: 5-1 Line #: Code: C
Original Comment #: 10
Comment: Obviously the schedule requires revision for the submittal date of the Certification Report.

Response: Agree.

Action: The schedule will be modified to allow for agency review and approval of this CDL. The Certification Report will be submitted within one week of the approval of the CDL if no additional sampling is required. Approval of the Certification Report will be pending the completion of the excavation of the IMHR after the Silos Project operations are complete.